

**REMARKS**

This Amendment is in response to the final Office action mailed on 25 August 2004 (Paper No. 6). Claims 1 through 3, 5 through 10 and 12 through 19 are pending. Applicant is amending claim 12 by this amendment.

In paragraph 4 of Paper No. 6, the Examiner objected to claim 12. Applicant has amended claim 12 to overcome this objection. In particular, the Examiner wanted Applicant to remove the quotation symbol before the word “no” on line 3. Instead, Applicant has added a quotation symbol after the word “port” to close the quote as already claimed in claim 1.

In Paper No. 6, the Examiner has rejected claims 1, 2 and 12-16 under 35 U.S.C. 102 (e) as being anticipated by Ganesh et al, U.S. Pub No. 2002/0051450. In Paper No. 6, the Examiner has rejected claim 3 under 35 U.S.C. 103 (a) as being unpatentable over Ganesh ‘450. In Paper No. 6, the Examiner has rejected claims 5-10, 15 and 17-19 under 35 U.S.C. 103 (a) as being unpatentable over Ganesh ‘450 in view of newly cited Parker, U.S. Patent No. 5,345,441. Applicant traverses these rejections. Applicant will now address, with specificity, why Applicant deems that the above rejections are improper.

**Regarding claim 1**, Applicant claims that the main search unit sends a “no port” signal to a local search block *when said main search unit does not have said destination address*. In Paper No. 6, the Examiner never addresses this limitation of Applicant’s claim

1. Because the Examiner does not address this limitation of Applicant's claim 1, Applicant submits that Paper No. 6 is an incomplete office action in violation of 37 C.F.R. 1.104 (b).

Furthermore, Applicant submits that this feature is not present and is not taught or suggested by Ganesh '450. Applicant submits that Ganesh '450 never even addresses the situation of when a destination address is not found in the central look up table. This is critical as Applicant's claimed invention claims what happens if the central look up table does not contain the destination address. Ganesh '450 never discusses the situation of when the central look up table does not have the destination address. For this reason, Applicant submits that Ganesh '450 does not teach Applicant's claimed invention.

**Regarding claim 12,** Applicant claims that each of the local search blocks are configured to broadcast a packet to all ports when in receipt of the "no port" signal from the main search unit. In Paper No. 6, the Examiner states that this feature is taught by lines 14-23 of paragraph 0030 of Ganesh '450. Applicant disagrees.

Applicant submits that this section of Ganesh '450 describes the flow chart of FIG. 5 which is an entirely different process than Applicant's invention. In FIG. 5 and in paragraph 0030 of Ganesh '450, a local port first receives a packet in step 100, then the look up table in the local search block is searched for a source address in step 102 and then the local search block is searched for a destination address, if the destination address is not

found in the look up table of the port, the port floods the frame in step 104 and then, in step 106, the central module is searched for the destination address.

In Applicant's invention, when a port receives a packet, the local look up table is searched for the destination address, and if not found, the central table is searched for the destination address. In other words, when the local port does not have the destination address in Applicant's invention, the next step is to search the main or central look up table for the destination address, not to flood the switch with the packet. The flooding in Applicant's invention occurs only after consulting the central look up table and receipt of the no port signal, not before consulting the central look up table. Thus, the process of FIG. 5 and in paragraph 0030 of Ganesh '450 is entirely unrelated to that of Applicant's invention.

In Applicant's claim 12, Applicant claims that the broadcasting occurs upon receipt of the "no port" signal. In Ganesh '450, the broadcasting occurs when the destination address is not found in the local search block. Applicant's "no port" signal is generated when the central table does not contain the address. Thus, Applicant's broadcasting occur only when the central look up table does not have the destination address. This is not true for Ganesh '450. Ganesh '450 is entirely silent as to what happens when the central table does not have the destination address. Further, the central table in Ganesh '450 is consulted *after* the flooding while in Applicant's invention, the central look up table is consulted *before* the broadcasting. Therefore, Ganesh '450 cannot teach Applicant's claim 12.

**Regarding claim 14,** Applicant claims filtering a packet or packets that have a destination address the same as its own port. In Paper No. 6, the Examiner states that lines 14-17 of paragraph 0030 of Ganesh '450 teaches this feature. Applicant disagrees.

Applicant submits that lines 14-17 of paragraph 0030 of Ganesh '450 pertains to step 104 of FIG. 5 of Ganesh and says, "Next the search engine searches for the destination address (step 104). If the destination address is not in the lookup table for the port, the port "floods" the frame (i.e., sends it out on all ports)." Applicant submits that this *flooding* is not equivalent to Applicant's *filtering*. Further, this section of Ganesh '450 does not ever determine when the destination address is the same as its own port. Further, Applicant submits that this feature of determining whether the destination and source are the same and filtering when the same is not present in Ganesh '450.

**Regarding claims 5, 15 and 17-19,** Applicant claims comparing the source and destination addresses with each other and forwarding the packet when the source and destination addresses do not equal. In Paper No. 6, the Examiner relies on Paker '441 for a teaching of the features of determining whether the source and destination address for a packet are the same and not forwarding the packet if they are the same. Applicant disagrees. Applicant has reviewed Paker '441 and cannot find such a teaching of this feature.

On page 13 of Paper No. 6, the Examiner indicates that column 5, lines 11-14 of Paker

'441 teaches this feature. Applicant disagrees. Applicant has consulted column 5, lines 11-14 of Paker '441 and this section of Paker '441 is a brief description of FIG. 26 of Paker '441 in the Brief Description of the Drawings section of the Paker '441 patent. Applicant has reviewed FIG. 26 and cannot find any reasonable connection with this passage or this figure and the feature of comparing the source and destination address to see if they are the same and then not forwarding the packet if they are the same.

Applicant further submits that the newly cited Paker '441 reference has 92 sheets of drawings and 58 columns of text, and if Paker '441 should disclose somewhere, the features of comparing the destination and source addresses to see if they are the same, and then filtering the packet when they are the same and forwarding only when they are different, Applicant would like more specificity as to where Paker '441 teaches these features than was given in Paper No. 6 for the sake of compact prosecution.

In Paper No. 6, the Examiner contends that it is obvious to one having ordinary skill in the art to modify Ganesh '450 according to Paker '441. Applicant disagrees. Applicant submits that one having ordinary skill in the art would not be inclined to turn to Paker '441 to fill in for the deficiencies of Ganesh '450.

Ganesh '450 pertains to look up tables in ports of a switch and aging and learning processes for the look up tables. Ganesh '450 seeks to save memory space by having the look

up tables of each port not to have addresses that are not used by the port. Thus, Ganesh '450 pertains to finding addresses and managing look up table entries so that memory space is conserved.

In contradistinction, Paker '441 does not, as a whole or even partly, pertain to saving memory and/or seeking addresses from a look up table. Instead, Paker '441 pertains to a 3-stage network that saves time by reducing path hunting. Paker '441 pertains to a more efficient use of available bandwidth, not to addresses in a look up table and not about saving memory. Applicant therefore submits that one having ordinary skill in the art would not be motivated to turn to a reference that is about more efficient use of bandwidth (Paker '441) to improve upon a reference that pertains to saving memory by customizing the address look up tables in individual ports of a switch (Ganesh '450). Applicant submits that the Examiner is haphazardly mixing and matching features of different references without providing satisfactory reasoning why Ganesh '450 and Paker '441 should be combined.

Applicant further notes that the Paker '441 reference is a newly cited reference in Paper No. 6 and is being applied against claims of Applicant's invention which were not amended. Applicant therefore submits that Paper No. 6 is a premature final office action as the new grounds of rejection using Paker '441 was not necessitated by Applicant's amendments.

**Regarding claim 8,** Applicant claims sending the no-port information from the main search block to the port if the main search block does not comprise the destination address. In Paper No. 6, the Examiner in page 10 states that lines 15-17 of paragraph 0030 of Ganesh '450 teaches this feature. Applicant disagrees.

Paragraph 0030 of Ganesh '450 states, "The central management module 36 searches the central lookup table 38 and passes the results, which includes the information about the destination address, back to the port." Applicant submits the results does not include information regarding that the address is not found in the central table. Ganesh '450 never ever contemplates the scenario when the central lookup table does not have the destination address. In every case that the central management table is searched in Ganesh '450, it finds and sends the destination address to the port and the port then updates its own table with the destination address sent from the central lookup table. Therefore, Applicant submits that Ganesh '450 does not teach the scenario of the central management module not finding the destination address, Ganesh '450 also does not teach sending a signal to the port to the effect that the address is not found in the central table, and Ganesh '450 also does not teach broadcasting upon receipt of this no-port signal from the central management module stating that the address could not be found.

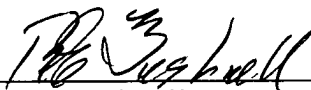
In conclusion, Ganesh '450 does not teach the features of Applicant's claims as asserted by the Examiner in Paper No. 6. Furthermore, Parker '441 does not teach the

features as alleged by the Examiner in Paper No. 6. Further, it was improper for the Examiner to combine Parker '441 with Ganesh '450. Further, this Paper No. 6 is both an incomplete Office action and a premature final Office action. For all these reasons, the rejection of Applicant's claims must be withdrawn.

No fees are incurred by the filing of this amendment.

In view of the above, it is submitted that the claims of this application are in condition for allowance, and early issuance thereof is solicited. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

Respectfully submitted,

  
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